

REMARKS**I. Status of the Claims:**

Claims 1 and 3-24 are currently pending.

By this Amendment, claims 5, 13 and 16 have been canceled without prejudice or disclaimer. Claims 1, 3, 6-9, 12, 14 and 17-20 have been amended. No new matter has been introduced by this Amendment.

Upon entry of this Amendment, claims 1, 3-4, 6-12, 14-15 and 17-24 would be pending.

II. Objection to Claims 3 and 4

The Examiner has objected to claims 3 and 4 as containing minor informalities. Applicant has amended these claims to address the Examiner's concerns. Thus, reconsideration and withdrawal of the objection of these claims are respectfully requested.

III. Rejections Under 35 U.S.C. §102:

Claims 1 and 3-24 have been rejected under 35 U.S.C. §102(e) as being anticipated over Bakhle et al. (U.S. Patent No. 6,061,092). Applicant respectfully traverses the rejections, as follows.

1. Claim 1:

Claim 1, as amended, is directed to an arrangement in which the signal processing device evaluates the different exposure periods for the plural first image sensing operations and selects the longest exposure period from respective different exposure periods in response to the instruction of the instruction device, and performs the second image sensing operation for the

plurality times of image sensing operations in accordance with a charge accumulation period of the second image sensing operation corresponding to the selected exposure period, and further processes the plurality of sensed image signals obtained with the different exposure periods by using the sensed image signal obtained by the second image sensing operation.

Bakhle does not disclose or suggest the above-noted features. In Bakhle, each scene image has control information identifying a unique dark column reference data associated with the scene image. In this way, the Bakhle system evaluates the operating conditions (e.g., exposure time) for each scene image individually and applies an appropriate dark image from a cache for DFPN cancellation processing to a scene image. This applies equally to when the cache is updated with new dark column reference data when the operating environment or exposure parameters have changed and a corresponding dark image is not located in the cache. Accordingly, Bakhle does not disclose or suggest evaluating the different exposure periods for the plural first image sensing operations and selecting the longest exposure period from respective different exposure periods in response to the instruction of the instruction device. It necessarily follows that Bakhle also does not disclose or suggest performing the second image sensing operation for the plurality times of image sensing operations in accordance with a charge accumulation period of the second image sensing operation corresponding to the selected exposure period, and further processing the plurality of sensed image signals obtained with the different exposure periods by using the sensed image signal obtained by the second image sensing operation.

Thus, claim 1 and its dependent claims are believed to be distinguishable over the cited reference.

2. Claim 12:

As amended, claim 12 is directed to an apparatus which includes an image sensing device, a signal processing device and an instruction device. The signal processing device performs a first image sensing operation for making the image sensing device perform an image sensing operation in an exposure state to obtain a sensed image signal, and for respective first image sensing operations performing a second image sensing operation for making the image sensing device perform an image sensing operation in a non-exposure state to obtain a sensed image signal. The signal processing device selects the longest exposure period of the first image sensing operation among the plurality of image sensing operations in response to the instruction of the instruction device, and performs the second image sensing operation for the plurality times of image sensing operations in accordance with a charge accumulation period of the second image sensing operation corresponding to the selected exposure period.

Bakhle is directed to video camera which generates a stream of video frames each including a header with dark column reference data, and performs image processing, e.g., DFPN cancellation, for each frame using “pre-stored ” dark images in a cache which correspond to the dark column reference data of a frame to be processed. The cache of dark images is initially populated during an initialization state (different from steady state operation of the camera system) in which dark images taken under a variety of operating environments and stored, and updated upon a significant change in operating environment (e.g., dark column reference data has changed significantly) via additional dark images maintained at the host or through acquisition of dark image for the changed operating environment. See Col. 6 and 7.

Bakhle is silent as to any signal processing device configured to perform a second image sensing operation for respective first image sensing operations. In fact, Bakhle teaches

away from such an arrangement. Further, for similar reasons as discussed above for claim 1, Bakhle does not disclose or suggest the other claimed features of the signal processing unit of claim 12. Accordingly, claim 12 and its dependent claims are distinguishable over the cited reference.

CONCLUSION

Based on the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-4602.

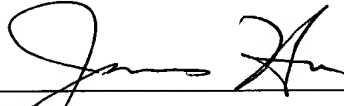
In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-4602.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: _____

4/13/05

By: _____


James Hwa
Registration No. 42,680
(202) 857-7887 Telephone
(202) 857-7929 Facsimile

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101